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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/708,132	02/09/2004	Alan J. Krebs	71189-1584	2131
20915	7590	04/07/2008		
MCGARRY BAIR PC 32 Market Ave. SW SUITE 500 GRAND RAPIDS, MI 49503			EXAMINER GRAHAM, GARY K	
			ART UNIT 3723	PAPER NUMBER
			MAIL DATE 04/07/2008	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/708,132	<b>Applicant(s)</b> KREBS, ALAN J.	
	<b>Examiner</b> Gary K. Graham	<b>Art Unit</b> 3723	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 December 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 3-12, 14-21 and 23-31 is/are pending in the application.
- 4a) Of the above claim(s) 23 and 24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 3-12, 14-21 and 25-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

Up reconsideration and review, the previously indicated allowability of claims is hereby withdrawn. An action follows.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 3, 5-10, 12, 14-21 and 25-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Salee (US patent 5,424,519).

The patent to Salee discloses the invention as is claimed, including a device having a head (3) with a resilient pad (26), associated fabric cover layer (25) and a thermal storage body (20) provided in said head and adjacent the cover layer. A flexible handle (5, 6 or 10) is provided on the head. As such is of flexible material, it is considered to be pivotally mounted to the head, at least as far as defined. The thermal storage body is adapted to store energy and to release such over an extended period of time to the cover layer in an exothermic process. The thermal body (20) includes a resilient pad (43) and fluid mixture (42) have a liquid phase of a heat active fluid (water/alcohol, etc) and a solid phase (wax or oil) suspended in the liquid phase. The solid phase is suspended in the liquid phase and undergoes a phase change (liquid to solid) during the exothermic process.

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With respect to claims 25, 26 and 27 and the defining of the device as a "floor cleaner", such does not act to define over Salee. As the outer layer (25) of Salee is a fabric sheath, such is capable of cleaning function, nothing would prohibit such. The device of Salee could be moved over a surface to clean a surface. Such relates to the intended use of the device and does not limit the device structurally.

With respect to claims 25 and 26, any one of the handles (5,6,10) can be considered as "upright" with respect to the surface from which it extends and depending on the orientation of the head with respect to the floor or horizontal surface.

With respect to claims 9 and 10, the thermal storage body is considered as removable since it can be removed. Nothing would prohibit such removal, even if the device has to be cut apart.

Likewise, with respect to claim 20, the handles (5,6,10) of Salee could be removed. Nothing would prohibit such removal.

Claims 4, 7, 8, 9, 10, 11, 20, 25, 27 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Keltner (US patent 4,604,987).

The patent to Keltner discloses the invention as is claimed, including a device (fig.8) having a head (100) with a resilient pad therein, associated fabric cover layer (82,84) and a chemical reaction thermal storage body (10) associated with said head and in direct contact with the cover layer (82). A flexible handle (102) is provided on the head. As such is of flexible material, it is considered to be pivotally mounted to the head, at least as far as defined. The thermal storage body is adapted to store energy and to release such over an extended period of time to the cover layer in an exothermic process.

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With respect to claims 25 and 27 and the defining of the device as a "floor cleaner", such does not act to define over Keltner. As the outer layer (82,84) of Keltner is of air permeable fabric, such is capable of cleaning function, nothing would prohibit such. The device of Keltner could be moved over a surface to clean a surface. Such relates to the intended use of the device and does not limit the device structurally.

With respect to claims 25 and 26, the handle (102) can be considered as "upright" with respect to the surface from which it extends and depending on the orientation of the head with respect to the floor or horizontal surface.

With respect to claims 9 and 10, the thermal storage body is considered as removable since it can be removed from the pocket.

Likewise, with respect to claim 20, the handle (102) of Keltner could be removed. Nothing would prohibit such removal.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-12, 20, 21, 25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sloan (US patent 4,971,471).

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The patent to Sloan discloses the invention substantially as is claimed (fig.3). Sloan discloses a floor cleaner comprising a cleaning head (16) removably and pivotally attached to an upright handle (54) via joint (58), a cleaning implement (40 or 46) associated with the cleaning head and a resilient thermal storage body (18 or 36) removably associated with the cleaning head and adjacent the cleaning implement. Cleaning fluid or wax passes through the body (18 or 36) and then through the cleaning implement (40 or 46). Thus thermal energy that passes into the body (18 or 36) will be released to the cleaning implement. As such, the body (18 or 36) is considered to be adapted to store thermal energy and to release the stored thermal energy over time, as is claimed, in an exothermic process. In other words, if heated fluid is passed into the body (18 or 36), the thermal energy associated therewith will be released to the cleaning implement (exothermic process) as is claimed, nothing would prevent such. Therefore, the body is adapted to store and release the energy as far as is claimed.

The patent to Sloan discloses all of the above recited subject matter with the exception of using a heated fluid and the fluid comprising gel.

While Sloan does not discuss heated fluid, it is well known to heat both cleaning fluids and wax for cleaning of floors. Heated fluid provides increase cleaning action It would have been obvious to one of skill in the art to heat the cleaning fluid or wax of Sloan, as is well known, to enhance cleaning action thereby.

With respect to claim 9, the body (18,36) can be placed in a heating device when such is removed from the handle. Nothing would prevent such.

With respect to claim 12, note that the cleaning fluid passing through the body (18) is microwave active and the body is encapsulated by pad (36).

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While Sloan discloses that liquid cleaning substance can be used which would pass through the thermal body (36), to employ a gel cleaning substance does not appear inventive. Cleaning substances in both liquid form and gel form are well known. As such, it would have been obvious to one of skill in the art to employ a gel cleaning substance instead of a liquid cleaning substance for that of Sloan, as a mere art recognized equivalent cleaning substance form, lacking any criticality of the cleaning substance form. In other words, employing a gel instead of a liquid does not appear of patentable significance.

### ***Response to Arguments***

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection. As set forth above, the patents to Salee and Keltner disclose the invention as is claimed as they include fabric layers that can perform cleaning and have handles extending therefrom. The newly cited patent to Keltner uses an exothermic chemical reaction to perform the heating. Further, upon reconsideration, heating fluid passing through Sloan will carry out an exothermic process as claimed since heat will flow from the floor cleaner.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gary K. Graham whose telephone number is 571-272-1274. The examiner can normally be reached on Tuesday to Friday (6:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph J. Hail can be reached on 571-272-4485. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gary K Graham/  
Primary Examiner, Art Unit 3723

GKG  
31 March 2008